

ABSTRACT

A surface treatment method capable of performing a thick layer machining of 300 to 500 μm which is high in hardness, excellent in heat resistance and antibiotic operation on a surface of any kind of aluminum material is provided. The method is characterized by performing an anodic oxidation treatment by using a bath liquid involving an aqueous solution containing 250 gr/l to 350 gr/l of sulfuric acid and 15 gr/l to 25 gr/l of nickel sulfate under the conditions of (a) bath liquid temperature: -10°C to $+25^{\circ}\text{C}$; (b) voltage: DC 100 V to 200 V; and (c) current density: 0.5 A/dm^2 to 20 A/dm^2 . To the above-described bath liquid, a low polymerization acrylic resin composition may further be added in the range of from 280 gr/l to 320 gr/l.